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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,107	09/24/2003	Norman Goris	N. GORIS 6-6	7170

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EXAMINER	
JACKSON, BLANE J	

ART UNIT	PAPER NUMBER
2618	

NOTIFICATION DATE	DELIVERY MODE
05/29/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docket@hittgaines.com

Office Action Summary	Application No.	Applicant(s)	
	10/670,107	GORIS ET AL.	
	Examiner	Art Unit	
	BLANE J. JACKSON	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 April 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11 and 13-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11 and 13-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 24 April 2009 has been entered.

Response to Amendment

With regard to the After Final amendments, the amendment to visually indicate the vital sign information to the user when determining the vital sign information is suggested by Heinonen et al., column 5, lines 54-65 but directly taught by secondary prior art Batkin, paragraphs 0031-0033. Batkin discloses the pickup and real time assessment of the patient's vital signs with instant feedback provided to the patient via the cell phone user interface as well as real time or delayed cellular transmission with the health care practitioner.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-11, 13 and 15-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinonen et al. (US 5,772,586) in view of Batkin et al. (US 2005/0239493).

As to claims 1 and 8, Heinonen teaches an apparatus and method of employing a mobile telephone to measure a vital sign said mobile telephone having a central processing unit including at least a portion of a vital signal measuring system comprising:

A microphone (figure 1, column 3, lines 18-38, a mobile telephone providing contact with the doctor),

A vital sign measuring system having a *vital sign sensor integrated within a chassis* of said mobile telephone and configured to determine vital sign information of a user wherein at least a portion of said vital sign measuring system includes a series of computer program instruction adapted to be executed on a processor of said mobile telephone (figures 1-3, column 3, lines 18-64, measuring unit (11) placed in the battery space, not separately attached, of a mobile phone (1), the measuring unit with means for measuring blood glucose level, blood pressure, fever or pulse; column 4, line 54 to column 5, line 13, the measuring unit is connected to a communication bus of the phone's processor, the phone software changed such that the display and the keyboard of the phone may be used in the act of measurement),

A keypad coupled to the vital sign measuring system configured to allow a user to employ said series of instructions to control said vital sign information from said vital sign information (figure 2, column 5, lines 54-65, keypad (13) is used by user to browse previous measurement results and inherently used in the act of measurement in conjunction with the display),

A display wherein said vital sign sensor is configured to send said vital sign information to said display, said display configured to receive said vital sign information from said vital sign sensor and provide said vital sign information to said user wherein said display and said microphone are located on a first side of said mobile telephone (figures 1 and 2, column 5, lines 54-65, the mobile phone is configured for usual hand held use; the patient can browse previous measurement results, monitor their development and read procedural advice during the act of measurement via the display (12)).

Heinonen teaches the vital sign measuring system communicates and uses the functions of a mobile phone when placed in the battery space of the mobile phone, column 4, lines 54-67, but does not teach the vital sign measuring system having a vital *sign sensor fabricated within a chassis* and a sensor located on a second side of the mobile telephone that is different from the first side of the mobile phone.

Batkin teaches a bio monitor and vital sign sensors fabricated within a chassis of a mobile phone, figures Ia, Ib, Ic and 3, paragraphs 0020-0024. Batkin discloses a first sensor to contact the user's head and a second and third sensor positioned on another portion of the surface of the device to establish a second contact with the user's hand to

support an ECG measurement, paragraphs 0021 and 0030. Batkin discloses a variety of other bio sensors can be fabricated on the surface of the chassis of the phone to acquire bio signals such as blood oxygen, pulse, and ear temperature, paragraph 0031. Batkin teaches the hand held system enables the pickup and real time assessment of the patient's vital signs with instant feedback to the patient, paragraph 0031. Since the bio monitor system is designed to provide instant feedback to the patient *as well as alternate bio signal and voice communication* during apparently normal telephonic exchange, paragraph 0031, it is understood the other bio sensors may be positioned on at least two surfaces of the phone to support contact with the user's head or hand as suggested by the three sensors to support ECG measurement, paragraph 0030),

It would have been obvious to one of ordinary skill in the art at the time of the invention to fabricate the vital sign measuring system of Batkin within the hand held mobile telephone of Heinonen to provide instant feedback for a variety of bio signals to the patient.

Heinonen teaches the patient can browse previous measurement results via the keyboard and display as well as the device includes a special program to guide the patient in carrying out the measurement and a prompt if the results exceed a predetermined threshold, column 5, lines 54-65. Though suggested, Heinonen does not clearly indicate a display to visually indicate the vital sign information to the user when determining the vital sign information.

Batkin teaches a cellular telephone and monitoring device that enables the pickup and real time assessment of the patient's vital signs including an ECG, blood

oxygen, pulse and the ear temperature, paragraph 0031. Batkin specifically discloses instant feedback can be provided to the patient, as well as real time or delayed data transmission with voice communication with the health practitioner, paragraphs 0031-0033.

Sine Heinonen teaches measurement results follow the user prompted vital sign measurement process, it would have been obvious to one of ordinary skill in the art at the time of the invention to realize the measurement results are displayed to user when determining the vital sign information as taught by Batkin in the vital sign measuring device of Heinonen to determine in real time if the measurement results exceed or fall below a predetermined threshold value.

As to claims 2 and 9 with respect to claims 1 and 8, Heinonen teaches said vital sign sensor is a body temperature sensor configured to determine said vital sign information of said user independent of a second vital sign sensor (column 3, lines 56-64, means for measuring the blood glucose level, measuring blood pressure, pulse or fever (body temperature).

As to claims 3 and 10 with respect to claims 1 and 8, Heinonen teaches the mobile telephone wherein said vital sign sensor is a blood pressure sensor (column 3, lines 56-64, means for measuring the blood glucose level and some other measurement such as blood pressure, pulse and fever (body temperature).

As to claims 4 and 11 with respect to claims 1 and 8, Heinonen teaches wherein said vital sign sensor is a pulse detector (column 3, lines 56- 64, means for measuring the blood glucose level and some other measurement such as blood pressure, pulse and fever (body temperature).

As to claim 5, Heinonen teaches the mobile telephone as recited in claim 1 wherein the vital sign sensor includes an analog to digital interface coupled to said display and configured to convert said vital sign information from analog data to digital data and directly send said digital data to said display to provide said vital sign information as digital data (figure 3, column 5, lines 21-65, electronic section (20) comprises an A/D converter and a memory where the vital sign information or levels are digitized and stored, the same information applied to the special program to guide the patient in the act of measurement with display).

As to claims 6 and 13 with respect to claims 1 and 8, Batkin of Heinonen modified further teaches a loudspeaker wherein said loudspeaker and microphone are coupled to the vital sign measuring system configured to provide said vital sign information to said user and configured to allow said user to control said vital sign measuring system respectively (paragraphs 0054 and 0056, communication with the health practitioner to control the bio signal information can be in half Duplex mode, the practitioner instructing the patient, or a real time conversation as voice over data in a CDMA based full duplex mode).

As to claim 7 with respect to claim 1, Batkin of Heinonen modified teaches said series of instructions of said vital sign measurement system are integrated with instructions of said mobile telephone executing on said central processing unit (figures 3 and 6, paragraphs 0049-0052, Note for figure 6, the bio monitor system is shown external to the mobile phone for clarity, the circuit shown is solely dependent on the mobile phone CPU for control and data processing).

Claim 12 is cancelled.

As to claim 15, Heinonen teaches a mobile telephone comprising:
A microphone (figure 1, column 3, lines 18-38, a mobile telephone providing contact with the doctor),

A vital sign measurement system including a body temperature sensor, a blood pressure sensor, a pulse detector and control circuitry coupled to said body temperature sensor, said blood pressure sensor and said pulse detector, said vital sign measurement system configured to determine vital sign information of a user (column 3, lines 56-64, a mobile telephone comprising a vital sign measuring unit (11) for, by example, measuring blood glucose level but may also comprise means to measure blood pressure, fever (body temperature) or pulse),

A central processor unit shared by said mobile telephone and said vital sign measurement, configured to control said body temperature sensor, said blood pressure

sensor and said pulse detector via said control circuitry when said vital sign measurement system is activated (figure 2, column 4, line 54 to column 5, line 65, the measuring unit is coupled to the phone communication bus with changes to the phone's software such that the measuring unit is interfaced to the user via the phone's display and keyboard), and

A display configured to receive said vital sign information from said vital sign measurement system and provide said vital sign information to said user wherein said display and said microphone are located on a side of said mobile telephone (figures 1 and 2, column 5, lines 54-65, the mobile phone is configured for usual hand held use; the patient can browse previous measurement results, monitor their development and read procedural advice during the act of measurement via the display (12)).

Heinonen teaches the vital sign measuring system communicates and uses the functions of a mobile phone when placed in the battery space of the mobile phone, column 4, lines 54-67, but does not teach the vital sign measurement system included within said mobile telephone during manufacturing and said display and said microphone are located on a side of said mobile telephone that does not include said body temperature sensor, said blood pressure sensor and said pulse detector.

Batkin teaches a bio monitor and vital sign sensors fabricated within a chassis of a mobile phone, figures Ia, Ib, Ic and 3, paragraphs 0020-0024. Batkin discloses a first sensor to contact the user's head and a second and third sensor positioned on another surface or side of the device to establish a second contact with the user's hand to support an ECG measurement, paragraphs 0021 and 0030. Batkin discloses a variety

of other bio sensors can be fabricated on the surface of the chassis of the phone to acquire bio signals such as blood oxygen, pulse, and ear temperature, paragraph 0031. Batkin teaches the hand held system enables the pickup and real time assessment of the patient's vital signs with instant feedback to the patient suggesting patient use of the display and keypad, paragraph 0031. Since the bio monitor system is designed to provide instant feedback to the patient *as well as alternate bio signal and voice communication* during apparently normal telephonic exchange, paragraph 0031, it is understood the other bio sensors may be positioned on at least two surfaces of the phone to support contact with the user's head or hand as suggested by the three sensors to support ECG measurement, paragraph 0030),

It would have been obvious to one of ordinary skill in the art at the time of the invention to fabricate the vital sign measuring system of Batkin within the hand held mobile telephone of Heinonen to provide instant feedback for a variety of bio signals to the patient.

Heinonen teaches the patient can browse previous measurement results via the keyboard and display as well as the device includes a special program to guide the patient in carrying out the measurement and a prompt if the results exceed a predetermined threshold, column 5, lines 54-65. Though suggested, Heinonen does not clearly indicate a display to visually indicate the vital sign information to the user when determining the vital sign information.

Batkin teaches a cellular telephone and monitoring device that enables the pickup and real time assessment of the patient's vital signs including an ECG, blood

oxygen, pulse and the ear temperature, paragraph 0031. Batkin specifically discloses instant feedback can be provided to the patient, as well as real time or delayed data transmission with voice communication with the health practitioner, paragraphs 0031-0033.

Sine Heinonen teaches measurement results follow the user prompted vital sign measurement process, it would have been obvious to one of ordinary skill in the art at the time of the invention to realize the measurement results are displayed to user when determining the vital sign information as taught by Batkin in the vital sign measuring device of Heinonen to determine in real time if the measurement results exceed or fall below a predetermined threshold value.

As to claim 16 with respect to claim 8, Batkin of Heinonen modified teaches operating said vital sign sensor is solely dependent on the central processing system (figures 3 and 6, paragraphs 0049-0052, Note for figure 6, the bio monitor system is shown external to the mobile phone for clarity, the circuit shown is solely dependent on the mobile phone CPU for control and data processing).

As to claim 17 with respect to claim 15, Heinonen teaches the mobile telephone wherein said vital sign measurement system includes a series of computer program instructions adapted to be executed on said processor to control said body temperature sensor, said blood pressure sensor and said pulse detector via said control circuitry (figure 3, column 4, line 63 to column 5, line 65, the phone software is changed to share

the phone processor, display, keyboard and transmission circuits with the measuring unit).

As to claim 18 with respect to claim 15, Batkin of Heinonen modified teaches said control circuitry provides said vital sign information to said user via a loudspeaker of said mobile telephone (paragraphs 0054 and 0056, communication with the health practitioner to control the bio signal information can be in half Duplex mode, the practitioner instructing the patient, or a two-way conversation as voice over data in a CDMA based full duplex mode).

As to claim 19, Heinonen teaches the mobile telephone as recited in claim 15 wherein said vital sign measurement system is activated by a keypad of said mobile telephone (figure 2, column 4, line 63 to column 5, line 3 and column 5, lines 54-65, keyboard (13) and display (12) are used in the act of measurement).

As to claim 20 with respect to claim 15, Heinonen teaches said vital sign information is provided to said user via an analog signal indicated on said display (column 5, lines 54-65, user can browse previous or current measurement results on the display).

As to claim 21 with respect to claim 15, Heinonen teaches a user interface configured to allow a user to select a measurement functionality employing a menu list

to start a measurement using said body temperature sensor, said blood pressure sensor or said pulse detector (column 4, line 63 to column 5, line 3, the telephone software is changed so the measuring unit is able to utilize the display and keyboard to control the measuring unit).

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Heinonen et al. (US 5,772,586) and Batkin et al. (US 2005/0239493) in view of Puthuff (US 6,112,103).

As to claim 14 with respect to claim 8, Batkin of Heinonen modified teaches a conventional mobile telephone equipped with a microphone and loudspeaker employed in conversation with a remote practitioner to control and review the bio monitor, paragraph 0054, but does not specifically teach controlling the vital sign measuring system (directly) with a microphone of said mobile telephone. Puthuff teaches a mobile telephone (figure 1, telephone (312)) with an attached personal communication node (PCN) (100) for the user to answer calls, initiate calls, receive or send messages by issuing voice commands, column 3, lines 8-23. Puthuff also teaches the PCN in combination with the cellular telephone includes software which interprets voice commands form the user such as to direct the cellular telephone to perform a certain function or direct a particular control function on a particular remote device, column 6, lines 10-46.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the vital health monitoring telephone of Heinonen modified with the

voice command ability of Puthuff for the hands free convenience of controlling the system by the patient.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BLANE J. JACKSON whose telephone number is (571)272-7890. The examiner can normally be reached on Monday through Thursday, 8:30 AM-7:00 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Blane J Jackson/

Examiner, Art Unit 2618